

REMARKS

This application has been reviewed in light of the Office Action dated April 14, 2009. Claims 1 and 11-13 are presented for examination, of which Claims 1 and 11 are in independent form. Claims 1 and 11 have been amended to define still more clearly what Applicants regard as their invention. Favorable reconsideration is requested.

Claims 1 and 11-13 were objected to on the ground that it was unclear to the Examiner from the specification, exactly what Applicants intend the type information relates to. Applicants submit that support for the “type information” can be found, for example, at page 37, line 25, to page 38, line 3 (which of the exclusive control right acquisition methods of the first and second embodiments is to be applied may be set in advance for each node). Information indicative of how an exclusive control right is set (first type or second type) is included in each node (data item). Moreover, Claims 1 and 11 have been amended to clarify the “type information”. Accordingly, Applicants submit that the objection to Claims 1 and 11-13 have been obviated and respectfully request that the objection be withdrawn.

Claims 1 and 11-13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 7,062,532 (*Sweat*) in view of U.S. Patent 5,933,825 (*McClaghry*), in view of U.S. Patent 6,529,905 (*Bray et al.*) in view of U.S. Patent 7,249,314 (*Walker*), in view of U.S. Patent 6,215,495 (*Grantham*). Applicants submit that independent Claims 1 and 11, together with the claims dependent therefrom, are patentably distinct from the cited prior art for at least the following reasons.

Claim 1 is directed to an information processing method for setting an exclusive control right of a data item by a specific process in a system in which a plurality of

processes that can communicate with each other via an information transmission medium share data including a plurality of data items by use of a data structure which has a hierarchy structure having a data item corresponding to an operational object as a root and describes a structural dependence of the virtual space.

Each of the data items has type information indicating that the respective data item belongs to a first type or a second type. If the data item belongs to the first type an exclusive control right is set to the specific process for the data item and all data items belonging to a lower layer of the data item when no exclusive control right is set for the data item and all data items. If the data item belongs to the second type the exclusive control right is set to the specific process for data items for which no exclusive control right is set, of the designated data item and all data items belonging to a lower layer of the data item.

The method includes a first designation step of designating a data item for which the exclusive control right is to be set. The method also includes a retrieval step of retrieving a data item which belongs to a lower layer of the data item designated in the first designation step on the basis of hierarchical structure information of the plurality of data items. In a determination step, it is determined whether or not an exclusive control right by another process is set, for each data item retrieved in the retrieval step. The method also includes a setting step, in which, when the designated data item is indicated as the first type by the type information, the exclusive control right for the specific process is set as to the designated data item and as to a retrieved data item retrieved in the retrieval step only if no exclusive control right is set by other process for the designated data item and all of the retrieved data items, and the exclusive control right for the specific process is not set as to all of the designated data items

and a retrieved data item in the retrieval step if the exclusive control right is set by another process for at least one of the designated data items and all of the retrieved data items. Also, in the setting step, when the designated data item is indicated as the second type by the type information, the exclusive control right for the specific process is set as to the designated data item and as to the data items for which it is determined in the determination step that an exclusive control right by another process is not set.

The method includes a second designation step of designating a data item for which the exclusive control right is to be released, and a first release step, of releasing the exclusive control right of the specific process as to the data item designated in the second designation step and a data item which belongs to a lower layer of the data item designated in the second designation step, while maintaining the exclusive control right of the specific process as to a data item which belongs to an upper layer of the data item designated in the second designation step.

Among other notable features of Claim 1 is the setting step. The setting step includes "... wherein each of the plurality of data items has type information indicating that the respective data item belongs to a first type in which an exclusive control right is set to the specific process for the data item and all data items belonging to a lower layer of the data item when no exclusive control right is set for the data item and all data items or a second type in which the exclusive control right is set to the specific process for data items for which no exclusive control right is set, of the designated data item and all data items belonging to a lower layer of the data item, and wherein, when the first type is indicated by the type information, an exclusive control right is set to the specific process for the data item and all data items belonging

to a lower layer of the data item when no exclusive control right is set for the data item and all data items, and wherein, when the second type is indicated by the type information, the exclusive control right is set to the specific process for data items for which no exclusive control right is set, of the designated data item and all data items belonging to a lower layer of the data item”. By virtue of this step, the exclusive control rights can be set based on type information indicating a first or a second type, thereby preventing exclusive control rights of a plurality of users from existing together in a group of objects, enhancing user operability.

Applicants submit that the cited references, even if taken in combination, fail to teach or suggest the setting step of Claim 1, because all of the cited references fail to teach or suggest the “type information” recited in Claim 1.

Nothing has been found in *Sweat* that teaches or suggests that the “plurality of data items has type information indicating that the respective data item belongs to a first type in which an exclusive control right is set to the specific process for the data item and all data items belonging to a lower layer of the data item when no exclusive control right is set for the data item and all data items or a second type in which the exclusive control right is set to the specific process for data items for which no exclusive control right is set, of the designated data item and all data items belonging to a lower layer of the data item”, as recited in Claim 1.

The Office Action asserts that downloaded files discussed in *Sweat* correspond to the “data items” recited in Claim 1. The placing of a lock on a downloaded file in *Sweat*, to prevent others from editing the locked file, is asserted to correspond to the “exclusive control right” of Claim 1. The setting step of Claim 1 involves “plurality of data items has type information indicating that the respective data item belongs to a first type in which an exclusive

control right is set to the specific process for the data item and all data items belonging to a lower layer of the data item when no exclusive control right is set for the data item and all data items or a second type in which the exclusive control right is set to the specific process for data items for which no exclusive control right is set, of the designated data item and all data items belonging to a lower layer of the data item”. However, as discussed in *Sweat*, at column 15, lines 1-54, merely downloading and locking one file does not have any effect on other files (i.e., other “data items”). Therefore, each of the plurality of data items (i.e., files that are locked) do not appear to have type information indicating that the data item belongs either to a first or to a second type, because locking the downloaded file, at most, sets the exclusive control right of the designated data item, but does not set any exclusive control rights of any data items belonging to a lower layer of the data item in a hierarchy structure.

Also, nothing has been found in *McClaghry* that teaches or suggests the setting step, as suggested at pages 5 and 6 of the Office Action. The Office Action cites Example 1 of *McClaghry*, at column 8, line 34, to column 9, line 3, as allegedly teaching or suggesting the retrieval, determination, and setting steps of Claim 1. In Example 1 an RK lock is acquired for an original folder A (i.e., the designated data item) and an RC lock is acquired for the children of folder A (i.e., retrieved data items). However, according to Fig. 5 of *McClaghry*, acquiring an RK lock of folder A is possible regardless of its current lock state (i.e., regardless of the exclusive control right). Therefore, *McClaghry* cannot teach or suggest “a setting step of: when the designated data item is indicated as the first type by the type information, setting the exclusive control right for the specific process as to the designated data item and as to a retrieved data item retrieved in said retrieval step only if no exclusive control right is set by other process for the designated data item and all of the retrieved data items”, as recited in Claim 1 (emphasis added).

Nor is the other art of record believed to provide any disclosure that would have suggested the above-noted feature of Claim 1. Accordingly, Claim 1 is believed to be clearly allowable over the art of record.

Claim 11 also recites these features, and therefore is believed to be allowable over the art of record.

The other claims in this application are each dependent from Claim 1, and are therefore believed patentable for at least the same reasons. Because each dependent claim also is deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

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